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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,658	09/29/2000	Alan L. Weinberger	3642-2	3836

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EXAMINER
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PATEL, JAGDISH

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/675,658

Applicant(s)

WEINBERGER, ALAN L.

Examiner

JAGDISH PATEL

Art Unit

3624

*WJW*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3624

**DETAILED ACTION**

1. This communication is in response to amendment filed 6/15/04.

***Response to Amendment***

2. Claims 1 and 9 have been amended per request. Claim 21 has been added.

***Response to Arguments***

3. Applicant's arguments with respect to claims 1-20 have been considered but are not persuasive for the following reasons.

The applicant traverses rejection of claims under 35 U.S.C. 101 based on assertion that "structure" for determining a power determining spectral density (PSD) and "structure" for ranking the mutual funds as described in the specification meets the requirement because those of ordinary skill in the art would appreciate that the "structure" encompasses a computer or other general processing structure.

The examiner disagrees with this explanation because the structure as described in the specification does not exclude manually performing the calculation for the aforementioned parameters in other words there is no teaching that the

Art Unit: 3624

structure is limited to a specific technological implement such as a processor or a computer. The specification on p. 9, lines 7-12 fails to provide any definition of the structure (".. a system for comparing mutual funds includes structure for determining a power spectral density (PSD) of respective mutual funds according to fund cumulative growth (G) and fund stability (S), and structure for ranking the mutual funds from highest to lowest power spectral density.") The claim with its broadest and reasonable interpretation of structure fails to exclude non-technological method (or means) to perform the calculation steps of the claimed invention.

It is also noted that the claims only recite limitation "structure" only in the preamble (claims 1 and 9). A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Independent claims 1, 9 and 21 recite the limitation "processing structure" in the preamble. No limitation requires the processing structure to carryout the respective method

Art Unit: 3624

step(s). Therefore, no patentable weight is accorded to the limitation of the preamble.

Based on the foregoing analysis claims 1-20 stand rejected under 35 USC 101 as the claims not limited to or within technological arts. (Note: the analysis of method claims also applies to system claims 17-20 since the specification fails to recite technological implementation of the method which underlies the "means for" elements.). Newly added claim 21 is analyzed in similar manner as claim 1.

Words of the claim are given their ordinary and customary meaning, unless it appears from the written description that they were used differently by the Appellant. When an Applicant chooses to be his or her own lexicographer and defines terms with special meaning, he or she must set out a special definition explicitly and with "reasonable clarity, deliberateness, and precision" in the disclosure to give one of ordinary skill in the art notice of the change. see *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325, 63 USPQ2d 1374, 1381 (Fed. Cir. 2002)), *Rexnord Corp. v. Laitram Corp.* 274 F.3d 1336, 1342, 60 USPQ2d 1851, 1854 (Fed. Cir. 2001) and MPEP 2111.01. Pursuant to 35 U.S.C. §112 (second) "[I]t is Applicant's burden to precisely define the invention, and not the [Examiner's]." In re Morris, 127 F.3d 1048, 1056, 44 USPQ2d

Art Unit: 3624

1023, 1029 (Fed. Cir. 1997). Therefore, it would not be proper for the examiner to give words of the claim special meaning when no such special meaning has been defined by the Applicant in the written description. In this regard the limitation "processing structure" is given its ordinary and customary meaning as described in the foregoing analysis since the specification does not provide a special definition explicitly and with "reasonable clarity, deliberateness, and precision" in the disclosure for the term "processing structure".

Please note that new method claim 21 is analyzed in a similar manner as claims 1 and 9.

#### ***Claim Rejections - 35 USC § 101***

4. Claims 1-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

#### **Claims 1-21 are not within technological art**

5. As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a

Art Unit: 3624

patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

6. Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See

Art Unit: 3624

State Street Bank & Trust Co. v. Signature Financial Group, Inc.  
149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

7. This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

8. The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

9. In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the



Art Unit: 3624

claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

10. The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test.

In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds.

Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under § 101, but rather under §§ 102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, *State Street* never addressed the second part of the analysis, i.e., the

Art Unit: 3624

"technological arts" test established in Toma because the invention in State Street (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the Toma test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See Ex parte Bowman, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

11. In the present application, Claims 1-21 have no connection to the technological arts. None of the steps indicate any connection to a computer or technology. The method step of determining a power spectral density could be performed manually by a person. There is no application of technology in practicing the method steps of claims 1-16 and 21 and operation of system elements of claims 17-20. Clearly, the claimed inventions are not within a technological art, i.e. useful art. Note that it not sufficient to merely recite technological implementation in the preamble such "a computerized method" etc. In stead the claimed invention must defined technology in critical process steps of the claimed method. Note also that the technological implementation recited in the claim must be supported by the specification for enable requirement.

Art Unit: 3624

***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAGDISH PATEL whose telephone number is (703)308-7837. The examiner can normally be reached on 800AM-600PM M-Th.

Art Unit: 3624

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on (703)308-1065. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jagdish N. Patel

(Primary Examiner, AU 3624)

9/15/04